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Abstract

This report describes the results of the Environmental Radiological Surveys conducted during the month of March 1989. All scheduled surveys were completed.

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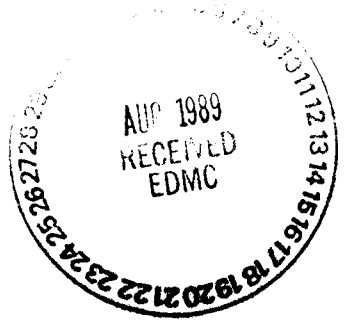

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ENVIRONMENTAL RADIOLOGICAL SURVEY REPORT FOR MARCH 1989

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ENVIRONMENTAL DIVISION
ENVIRONMENTAL ASSURANCE
ENVIRONMENTAL PROTECTION
200/600 AREAS ENVIRONMENTAL PROTECTION

Executive Summary

Routine surveys to monitor radiological conditions are performed by Westinghouse Hanford Company on the surfaces of roads, firebreaks, radioactive waste sites, radioactively contaminated areas resulting from spills or releases, areas near buildings, tank farms, and other facilities in the 200 and 600 Areas. The survey frequencies for particular sites may be monthly, quarterly, semiannually, or annually, depending on the site history, radiological status, use, and general conditions. Additional surveys may be requested at irregular frequencies and are designated as special surveys or "specials". Radiological surveys are conducted on sites to detect surface contamination that may result from biological intrusion, erosion, or contamination that is windblown from other sources. Survey data are compared with operational control standards in WHC-CM-7-5, Environmental Compliance Manual, as well as past survey results to recognize possible trends, assess environmental impacts, and help determine where corrective actions are needed. Landlords of sites or facilities found out of compliance are issued a Surveillance and Compliance Inspection Report.

It should be noted that this program consists of operation's environmental surveys only and are not inclusive for the entire 200/600 Areas (e.g., inside active Tank Farms and Facilities are not included in these reports). Also, an environmental survey to determine surface radioactivity conditions does not equate to a release survey. Therefore, an environmental radiological survey that detects no surface contamination within a radiation control area does not mean that site is released from control.

The March 1989 survey results and the status of actions required in past reports are summarized below:

- Twenty-three radiological surveys were completed during March 1989. These are summarized in Table 5.1.
- One Surveillance and Compliance Inspection Report was issued as a result of March surveys.
- The term "Surveillance and Compliance Inspection Report" has replaced the terms "Audit Finding" and "Inspection Report" of previous Summary Reports.
- There remained 50 Surveillance and Compliance Inspection Reports which had not been resolved. These are summarized in Table 5.3. Landlord responsibilities for the unresolved Surveillance and Compliance Inspection Reports are summarized in the Executive Summary Table.

EXECUTIVE SUMMARY TABLE

LANDLORD RESPONSIBILITY FOR OPEN SURVEILLANCE AND COMPLIANCE INSPECTION REPORTS

LANDLORD	SURVEILLANCE & COMPLIANCE INSPECTION REPORTS
Decontamination and Decommissioning	45
B Plant	2
PUREX	1
Tank Farm Process Operations	2

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 OBJECTIVES

Evaluations of all environmental radiation surveys conducted on 200/600 Areas road surfaces, outdoor radiation areas, low-level waste disposal sites and in the operations area environment under Westinghouse Hanford Company jurisdiction are the responsibility of Environmental Protection. These surveys and their analyses accomplish the following objectives:

- Determine compliance with Department of Energy requirements and Westinghouse policy and standards regarding operational control, environmental and radiological protection.
- Identify trends in radiation levels and radioactive contaminants at waste disposal sites, other radiation areas, and in the operations area environment.
- Assess the surface integrity of solid and liquid waste disposal sites.
- Detect contamination migration from radiologically controlled areas.
- Monitor for unplanned releases of radioactivity to the operations area environment.
- Determine the level of worker protection.
- Assure the general public of safety and environmental protection standards at the Hanford Site.

Sites surveyed and reported in this and similar monthly documents may include trenches, cribs, ponds, ditches, French drains, burial grounds, facility perimeters, tank farm perimeters, roadways, and areas with radioactive contamination due to spills or unplanned releases such as UN-216-E-1.

1.2 SURVEY RESULTS FORMAT

This report provides a summary of the 23 environmental radiological surveys conducted during March 1989. It includes brief descriptions of survey results, as well as the status of previously issued Surveillance and Compliance Inspection Reports. One Surveillance and Compliance Inspection Report was issued as a result of March surveys.

2.0 ENVIRONMENTAL PROTECTION STANDARDS

In this document, radiation survey data are used to determine compliance with the following WHC-CM-7-5, Environmental Compliance Manual, requirements:

Section L4.0 (a): Facility operations management shall provide a barrier over the contamination source which inhibits radionuclide transport to the surface. The barrier design shall be based on proven techniques which are appropriate for the type of disposal, and the adequacy of the barrier shall be verified by demonstrating through periodic monitoring that surface contamination levels do not exceed the limits established in Part K4.0.

Section L4.0 (c): Surface radiation levels shall be less than 1 mrem/hr (10 uSv/hr). The surface shall be uncontaminated; i.e., less than the limits in Part K (Part K4.0).

In this document, most radiation field measurements are reported in disintegrations per minute (dpm). In order to compare standards [as established in WHC-CM-7-5, Section L4.0 (c)] and field instrument values, a conversion factor is necessary. This conversion factor has been established where 20,000 dpm are approximately equivalent to one millirem per hour (mrem/hr), or 10 micro seiverts per hour (mSv/hr.), for beta emitting radionuclides (Hankins, 1982). It must be understood that converting field instrument values, which included both beta and gamma energies, is approximate and does not allow for absolute precision.

These requirements apply to all inactive radioactive waste sites which include tank farm perimeters, cribs, burial grounds, trenches, ditches, ponds, French drains, and other areas of radioactive contamination due to spills or releases. Tank farms and radiation areas where operations are ongoing are not included. Although active sites are not subject to standards contained in Part L of WHC-CM-7-5, corrective action may be either recommended or required if Westinghouse Hanford Company's ALARA policy, as described in WHC-CM-1-3, Management Requirements and Procedures, or any other pertinent standard is violated.

3.0 REPORTS AND FINDINGS

Whenever it is determined that conditions at a site are not in compliance with standards established in WHC-CM-7-5, a Surveillance and Compliance Inspection Report is issued by Environmental Protection to the appropriate area landlord to facilitate resolution and to bring the site into compliance. If a compliance plan is not provided to Environmental Protection within one month, a second Surveillance and Compliance Inspection Report is issued and if a compliance plan is not provided to and accepted by Environmental Protection within two months of first issue, the Surveillance and Compliance Inspection Report is considered delinquent and is placed on the Quality Safety Trending system (QST).

Once smearable contamination is contained on or removed from a site for which a Surveillance and Compliance Inspection Report has been issued, the Report may be closed after a follow-up radiation survey has indicated that no further environmental impact is anticipated. For example, nonsmearable contamination may remain and the site will remain as a radiation area but not be out of compliance, therefore, the Surveillance and Compliance Inspection Report is closed.

Resolution of a Surveillance and Compliance Inspection Report is considered initiated when a formal corrective action plan is provided to and accepted by Environmental Protection. However, for tracking purposes it will remain on file and appear in subsequent Environmental Radiological Survey Reports until satisfactory completion of the plan is demonstrated to Environmental Protection. A visual inspection by Environmental Protection and/or a post-corrective action radiation survey by Health Physics is required before closing a Surveillance and Compliance Inspection Report.

4.0 SURVEY METHODS AND PRACTICES

4.1 ROAD SURVEYS

Road surveys are performed with a beta-gamma detector mounted approximately 20 inches above the ground on the underside of a vehicle with a readout in the cab. The vehicle is driven at less than seven miles per hour. When activity is detected, the vehicle is stopped and a thorough survey is made with an Eberline Model BNW-1 survey meter equipped with a P-11 mica window probe to identify the extent of contamination. Waste Management Health Physics and the appropriate operations management are notified when road contamination is found so that corrective action can be initiated. The road monitor is designed to detect contamination over 5,000 disintegrations per minute and within the effective range of the detector.

4.2 WASTE SITES AND OTHER RADIATION AREA SURVEYS

Surveys at waste sites and other radiation areas may be conducted with vehicles equipped with radiation detection instruments or with hand-held field instruments. Field instrument survey results are reported in disintegrations per minute as detected by a P-11 mica window probe attached to an Eberline Model BNW-1 count rate meter. Alpha survey results are reported in disintegrations per minute and are measured with a portable alpha meter (PAM) or a portable alpha counter (PAC-6). Surveys include the perimeter and portions of the ground surface of radiation areas. Wherever possible, smear surveys are made on the surface of exposed equipment within a radiation area. Vegetation, animal burrows, and animal feces are also monitored to detect biological transport. Detailed survey practices and procedures are described in WHC-CM-4-10, Radiation Protection Manual, WHC-CM-4-13, Operational Health Physics Procedures, and WHC-CM-7-4, Operational Environmental Monitoring.

5.0 SURVEY RESULTS

Surface radiological survey schedules were revised in March to more efficiently distribute work loads. Radiological surveys scheduled in March 1989 included 23 sites. All scheduled surveys were completed and the results are summarized in the following sections.

5.1 MARCH RADIOLOGICAL SURVEY RESULTS

Twenty-three sites were surveyed in March. The completed surveys are summarized in Table 5.1 which is divided into site name, survey frequency, posting status, survey results, corrective action and, when appropriate, a site diagram (i.e., figure). One Surveillance and Compliance Inspection Report was issued (Table 5.2) as a result of the March surveys.

TABLE 5.1

MARCH RADIOLOGICAL SURVEY RESULTS

Site Name: 200 East Interior Roads

Survey Frequency: Bimonthly **Posting:** Not applicable

Survey Results:
- Subsurface shine, 20,000 dpm beta and gamma, no detectable alpha, at bus turnaround area south of B Plant.
- Subsurface shine, 6,000 dpm beta and gamma, no detectable alpha, on Baltimore St. between BX and BY Tank Farm.
- No change in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 200 West Interior Roads

Survey Frequency: Bimonthly **Posting:** Not applicable

Survey Results:
- Subsurface shine, 3,000 dpm beta and gamma, no detectable alpha, at intersection of Camden St. and 23rd St.
- No change in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 216-A-10 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: No action required.

Site Name: 216-A-29 Ditch (Snow's Canyon) / 200 East

Survey Frequency: Annual **Posting:** Surface Contamination

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 3/88.
- This area is posted "Surface Contamination" but has no chains, therefore it is out of compliance with WHC-CM-4-10. SCIR # 8906EP200-025 issued to Tank Farms.

Corrective Action: Chains connecting the Surface Contamination signs need to be installed, or change the posting to a less restrictive category.

TABLE 5.1 CONTINUED

Site Name: 216-A-30 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Surface Contamination

Survey Results:
- 3,000 dpm beta/gamma direct on riser concrete pad.
- No change in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 216-A-36B Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 216-A-37-1 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 216-A-37-2 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- Decrease in activity since the last survey, 1/89.

Corrective Action: No action required.

Site Name: 216-A-45 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: No action required.

TABLE 5.1 CONTINUED

Site Name: 216-B-55 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 9/88.

Corrective Action: No action required.

Site Name: 216-B-62 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Surface Contamination

Survey Results:
- No contamination detected.
- No change in activity since the last survey.

Corrective Action: A release survey will be conducted to determine if this site should be posted "Underground Radioactive Material."

Site Name: 241-BX and -BY Tank Farm Perimeters

Survey Frequency: Annual **Posting:** Surface Contamination

Survey Results:
- Contaminated spots from 1,500 to 90,000 dpm beta/gamma with dose rates of 2 mrad/hr along south fence line.
- Decrease in activity since the last survey, 3/88.

Corrective Action: See SCIR # ESC-85-004, Table 5.3, for status.

Site Name: 216-C-1 Crib / 200 East

Survey Frequency: Annual **Posting:** Surface Contamination

Survey Results:
- This site was covered with 4 feet of ash during the decommissioning of Hot Semi-Works stack but remains within a Surface Contamination Area.

Corrective Action: No action required.

Site Name: 216-C-2 Crib / 200 East

Survey Frequency: Annual **Posting:** Surface Contamination

Survey Results:
- This site was covered with 4 feet of ash during the decommissioning of Hot Semi-Works but remains within a Surface Contamination Area.

Corrective Action: No action required.

TABLE 5.1 CONTINUED

Site Name: 216-C-3 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material around Crib with Surface Contamination signs around riser.

Survey Results:
- Concrete pad for riser has direct contamination to 3,000 dpm beta/gamma.

Corrective Action: No action required at this time.

Site Name: 216-C-5 Crib / 200 East

Survey Frequency: Annual **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 3/88.

Corrective Action: No action required.

Site Name: 241-C Tank Farm Perimeter / 200 East

Survey Frequency: Annual **Posting:** Not applicable

Survey Results:
- 1,500 to 2,000 dpm beta/gamma (background).
- Decreased activity since last survey, 3/88.

Corrective Action: No action required.

Site Name: 216-S-26 Crib / 200 West

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: No action required.

Site Name: 216-U-12 Crib / 200 East

Survey Frequency: Quarterly **Posting:** Surface Contamination

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: A release survey will be conducted to determine if this site should be posted "Underground Radioactive Material."

TABLE 5.1 CONTINUED

Site Name: 216-U-16 Crib / 200 West

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: Not action required.

Site Name: 216-U-17 Crib / 200 West

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 3/88.

Corrective Action: No action required.

Site Name: 216-W-LWC (Laundry Crib) / 200 West

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: No action required.

Site Name: 216-Z-20 Ditch / 200 West

Survey Frequency: Quarterly **Posting:** Underground Radioactive Material

Survey Results:
- No contamination detected.
- No change in activity since the last survey, 12/88.

Corrective Action: No action required.

5.2 SURVEILLANCE AND COMPLIANCE INSPECTION REPORTS ISSUED IN MARCH

One Surveillance and Compliance Inspection Report, # 8906EP200-025, was issued for 216-A-29 Ditch and the 216-B-3 Pond system for the lack of chains between "Surface Contamination" signs as required in WHC-CM-4-10.

TABLE 5.2
SURVEILLANCE AND COMPLIANCE INSPECTION REPORTS ISSUED IN MARCH

SITE	REPORT #	ISSUED TO	REQUIRED ACTION
216-A-29	8906EP200-025	Tank Farms	Chains between "Surface Contamination" signs.

5.3 STATUS OF OPEN SURVEILLANCE AND COMPLIANCE INSPECTION REPORTS

Work plans for sites found to be out of compliance with WHC-CM-7-5 either have been completed and submitted to Environmental Protection or are being developed by the responsible organization. Fifty Surveillance and Compliance Inspection Reports remained open. These reports are summarized in Table 5.3 to include the referenced site, site condition at the time of the surveillance or inspection, report number, date issued, action required, actionee, and current status.

TABLE 5.3

STATUS OF OPEN SURVEILLANCE AND COMPLIANCE INSPECTION REPORTS

Site/Condition: 216-A-24 Crib: 2,000 to 800,000 dpm on vegetation and surface.

Report #: ESC-84-02-02 **Date Issued:** 8/84

Action Required: Remove vegetation and clean the surface.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: Vegetation has been removed, the site has been cleaned, covered with clean dirt, and reseeded. All tasks and verification are scheduled to be completed by 10/89.

Site/Condition: UN-216-E-17: 10,000 to > 1,000,000 dpm on the surface.

Report #: ESC-84-02-03 **Date Issued:** 8/84

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: Work is scheduled to begin and be completed in FY 1990.

Site/Condition: UN-216-E-31: 2,000 to > 1,000,000 dpm on tumbleweeds and surface.

Report #: ESC-84-02-04 **Date Issued:** 8/84

Action Required: Remove the tumbleweeds and clean the surface.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: This site is scheduled for cleanup in FY 1991.

Site/Condition: 202-S Railroad Cut: 20,000 to 500,000 dpm on surface and tumbleweeds.

Report #: ESC-85-02-02 **Date Issued:** 6/85

Action Required: Remove tumbleweeds and clean the surface.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: The railroad has been covered with gravel to immobilize contamination and shield the radioactivity. This report will be closed upon formal notice of work completion.

TABLE 5.3 CONTINUED

Site/Condition: A, AX, AY, AZ, B, BX, BY Tank Farm Perimeters: Spot contamination from 2,000 to > 1,000,000 dpm with dose rates to 90 mrad/hr.

Report #: ESC-85-004 **Date Issued:** 6/85

Action Required: Clean surfaces.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: Past interim cleanup has been ineffective due to contamination sources from inside the Tank Farms. Resolution and cleanup is scheduled for FY 1994.

Site/Condition: UN-216-E-23: 10,000 to 700,000 dpm on surface and tumbleweeds.

Report #: ESC-85-019 **Date Issued:** 11/85

Action Required: Remove tumbleweeds and clean surface.

Actionee: Manager, B Plant Operations.

Current Status: Tumbleweeds have been removed. The site will be cleaned up in FY 1990.

Site/Condition: 216-B-57 Crib: 15,000 to 600,000 dpm on the surface.

Report #: ESC-85-016 **Date Issued:** 2/86

Action Required: Clean surface and stabilize site.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: The estimated completion date is 9/30/90.

Site/Condition: West of 216-B-64 Trench: 2,000 to 500,000 dpm on surface and ant hills.

Report #: ECU-86-016 **Date Issued:** 4/86

Action Required: Poison ants and clean surface.

Actionee: Manager, Decontamination and Decommissioning Operations.

Current Status: The ants have been poisoned three times since 1985, most recently in 1989. Cleanup is scheduled for FY 1992.

TABLE 5.3 CONTINUED

Site/Condition: 207-S Retention Basin: 4,000 to 100,000 dpm on surface and tumbleweed fragments.

Report #: ECU-86-022 **Date Issued:** 8/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Estimated completion date is 9/30/90.

Site/Condition: 216-Z-5 Crib: 100,000 dpm on tumbleweed fragments and surface. Site has high cave in potential.

Report #: ECU-86-026 **Date Issued:** 8/86

Action Required: Cleanup and stabilize site.

Current Status: An engineering study is needed prior to commencing cleanup activities. This site is to be addressed by the crib isolation/stabilization program and is proposed for inclusion in the FY 1989 work scope.

Site/Condition: 216-Z-7 Crib: 30,000 to > 1,000,000 dpm with dose rate of 20 mrad/hr on tumbleweed fragments and surface. Site has high cave in potential.

Report #: ECU-86-028 **Date Issued:** 8/86

Action Required: Cleanup and stabilize site.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: An engineering study is needed prior to commencing cleanup activities. Estimated completion date is 9/30/93.

Site/Condition: 218-E-12B Stabilized Burial Ground: 10,000 to 300,000 dpm on surface as a result of termite intrusion.

Report #: ECU-86-036 **Date Issued:** 10/86

Action Required: Clean surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: 300,000 dpm spot has been cleaned up and the termites exterminated. The estimated completion date is 9/30/93.

TABLE 5.3 CONTINUED

Site/Condition: UN-216-W-7: 3,000 to > 1,000,000 dpm on surface with dose rate to 10 mrad/hr.

Report #: ECU-86-045 **Date Issued:** 10/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/89.

Site/Condition: UN-216-W-24: 50,000 dpm on the surface.

Report #: ECU-86-046 **Date Issued:** 10/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/91.

Site/Condition: UN-216-W-29: 5,000 to 20,000 dpm on the surface.

Report #: ECU-86-047 **Date Issued:** 10/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/90.

Site/Condition: UN-216-W-30: 10,000 TO 1000,000 dpm on the surface.

Report #: ECU-86-048 **Date Issued:** 10/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

TABLE 5.3 CONTINUED

Site/Condition: UN-216-W-31: 2,000 to 500,000 dpm on the surface.

Report #: ECU-86-049 **Date Issued:** 10/86

Action Required: Clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

Site/Condition: 216-T-26 through 28 Trenches: 2,500 to 500,000 dpm with dose rates of 2.5 mrad/hr on rabbit feces.

Report #: ECU-86-052 **Date Issued:** 11/86

Action Required: Remove rabbit feces and clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Cleanup is scheduled for completion in FY 1990.

Site/Condition: 216-T-34 Crib: 10,000 to 50,000 dpm on the surface, 300,000 dpm with dose rates to 5 mrad/hr on live tumbleweeds.

Report #: ECU-86-053 **Date Issued:** 11/86

Action Required: Remove the tumbleweeds and clean the surface.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Site cleanup will be completed by 9/30/89.

Site/Condition: 618-2&3 Burial Grounds: 2,000 to 70,000 dpm on the surface.

Report #: ECU-86-057 **Date Issued:** 12/86

Action Required: Clean the surface and fill depressions.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Clean dirt has been placed over the surface. Completion is scheduled by 9/30/89.

TABLE 5.3 CONTINUED

Site/Condition: 216-C-8 French Drain: 3,000 to 50,000 dpm on the surface.

Report #: ECU-87-10 **Date Issued:** 4/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/89.

Site/Condition: 241-S,SX,& SY Tank Farm Perimeters: 2,000 to > 1,000,000 dpm on the surface with dose rates to 20 mrad/hr.

Report #: ECU-87-20 **Date Issued:** 5/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/93.

Site/Condition: 216-A-6 Crib: 2,000 to 20,000 dpm on tumbleweeds and on the surface.

Report #: ECU-87-21 **Date Issued:** 5/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/90.

Site/Condition: 216-A-7 Crib: 12,000 to 15,000 dpm on the surface plus subsurface shine.

Report #: ECU-87-22 **Date Issued:** 5/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/89.

TABLE 5.3 CONTINUED

Site/Condition: 204-S Stabilized Area: 150,000 dpm on the surface with dose rates to 25 mrad/hr.

Report #: EP-87-28 **Date Issued:** 8/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: 216-Z-10 Crib: 10,000 to 250,000 dpm on the surface, rabbit feces, and tumbleweed fragments.

Report #: EP-87-33 **Date Issued:** 8/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: 218-W-9 Vault: 100,000 dpm on the surface.

Report #: EP-87-34 **Date Issued:** 8/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: 216-S-6 Crib: 2,000 to 200,000 dpm on the surface and on live and dead rabbitbrush.

Report #: EP-87-35 **Date Issued:** 9/87

Action Required: Remove the vegetation and clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

TABLE 5.3 CONTINUED

Site/Condition: UN-216-W-26: 5,000 dpm on weeds and on the surface.

Report #: EP-87-38 **Date Issued:** 10/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/91.

Site/Condition: UN-216-E-16: 300,000 dpm on the surface.

Report #: EP-87-42 **Date Issued:** 10/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: UN-216-E-32: 40,000 dpm on the surface.

Report #: EP-87-44 **Date Issued:** 10/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: 216-B-7A & B Cribs: 50,000 dpm on the surface.

Report #: EP-87-45 **Date Issued:** 11/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

TABLE 5.3 CONTINUED

Site/Condition: 216-B-9 Crib & Tile Field: 30,000 dpm on the surface.

Report #: EP-87-46 **Date Issued:** 11/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

Site/Condition: 216-B-43 through 50 Cribs: 3,000 to 60,000 dpm on surfaces.

Report #: EP-87-47 **Date Issued:** 11/97

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

Site/Condition: 216-T-3 Reverse Well: 250,000 dpm on tumbleweed fragments and on the surface.

Report #: EP-87-48 **Date Issued:** 11/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/92.

Site/Condition: UN-216-E-37: Activity greater than 1,000,000 dpm on the surface with dose rates to 25 mrad/hr.

Report #: EP-87-50 **Date Issued:** 12/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

TABLE 5.3 CONTINUED

Site/Condition: Tank Unloading Station at T Plant: 100,000 dpm beta/gamma and 7,000 dpm alpha smearable contamination on duct work. Surface contamination also present.

Report #: EP-87-51 **Date Issued:** 12/87

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

Site/Condition: 276-U Basin: 4,000 to 200,000 dpm on the surface.

Report #: EP-88-7 **Date Issued:** 5/88

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The estimated completion date is 9/30/90.

Site/Condition: 216-A-40 Basin: 5,000 to 50,000 dpm on tumbleweed fragments and on the surface.

Report #: EP-88-9 **Date Issued:** 5/88

Action Required: Clean the area.

Actionee: Manager, Tank Farms Process Operations.

Current Status: Clean up is in progress. The estimated completion date is 12/30/89.

Site/Condition: WR Vault: 25,000 dpm on the surface.

Report #: EP-88-10 **Date Issued:** 5/88

Action Required: Clean the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The decontamination plan is in progress. The estimated completion date is 9/30/89.

TABLE 5.3 CONTINUED

Site/Condition: 216-U-1 & 2 Cribs: 2,500 to 8,000 dpm on surface outside of the perimeter.

Report #: EP-88-15 **Date Issued:** 9/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The engineering study will be completed by 9/30/89.

Site/Condition: 618-5 Burial Ground: 2,000 to 10,000 dpm on the surface.

Report #: EP-88-17 **Date Issued:** 9/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Clean dirt has been placed over the contamination. The estimated completion date is 9/30/89.

Site/Condition: 216-U-10 Pond: Contamination to 10,000 dpm on the surface.

Report #: 8810EP200-008 **Date Issued:** 10/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Engineering study will be completed by 9/30/89.

Site /Condition: 216-U-11 Overflow Area: Contamination to 10,000 dpm on the surface and subsurface source.

Report #: 8810EP200-009 **Date Issued:** 10/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: This site was to have been completed 1/89 but Environmental Protection has not been asked to close the Report.

TABLE 5.3 CONTINUED

Site/Condition: UN-216-W-33: Contamination from 5,000 to 25,000 dpm on vegetation and the surface.

Report #: 8810EP200-012 **Date Issued:** 10/88

Action Required: Clean up the area.

Actionee: Manager, Tank Farm Operations.

Current Status: Clean up is in progress. The estimated completion date is 9/30/89.

Site/Condition: 218-W-2A Burial Ground: Contamination from 20,000 to 500,000 dpm on the surface due to new contaminated tumbleweed growth and termite emergence.

Report #: 8810EP200-024 **Date Issued:** 11/88

Action Required: Kill the termites, apply herbicides, and clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: The entire burial ground has been treated with herbicides, the contaminated area is being scraped, pesticides will be applied to the scraped area, and covered with dirt. The estimated completion date is 9/30/89.

Site/Condition: 216-B-11A & B Reverse Wells: Spot contamination from 10,000 to 25,000 dpm around site perimeter.

Report #: 8810EP200-025 **Date Issued:** 11/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Necessary corrective actions are being investigated.

TABLE 5.3 CONTINUED

Site/Condition: 216-B-64 Retention Basin: Spot contamination from 3,000 to 15,000 dpm on the surface.

Report #: 8810EP200-026 **Date Issued:** 11/88

Action Required: Clean up the area.

Actionee: Manager, B Plant Operations.

Current Status: This area has been treated with herbicides to prevent growth of contaminated vegetation.

Site/Condition: 216-T-18 Crib: Spot contamination from 2,000 to 10,000 dpm on the surface resulting from termite emergence.

Report #: 8810EP200-027 **Date Issued:** 11/88

Action Required: Clean up the area.

Actionee: Manager, Decontamination and Decommissioning.

Current Status: Feasibility investigations to be conducted in FY 1989.

Site/Condition: UN-216-E-16: Surface contamination from 10,000 to 1,000,000 dpm with dose rates to 15 mrad/hr.

Report #: 8901EP200-001 **Date Issued:** 1/89

Action Required: Clean up the area.

Actionee: Manager, PUREX Operations.

Current Status: The area is in the process of being cleaned up. The expected completion date is 6/09/89.

6.0 SUMMARY

Twenty-three sites were surveyed in March 1989 (Table 5.1). No Surveillance and Compliance Inspection Reports were issued.

Fifty Surveillance and Compliance Inspection Reports remained open. All open reports have been addressed and clean up plans with completion dates are actively being developed or have already been provided to Environmental Protection. The status of the open reports are summarized in Table 5.3.

7.0 REFERENCES

Hankins, D. E., "Evaluation of Beta Energy (E max) and Spectral Type Using Survey Instruments"; UCRL-88275, November 1982

WHC-CM-1-3, Management Requirements and Procedures

WHC-CM-4-10, Radiation Protection

WHC-CM-4-13, Operational Health Physics Procedures

WHC-CM-7-4, Operational Environmental Monitoring

WHC-CM-7-5, Environmental Compliance Manual

File

DISTRIBUTION SHEET

To Environmental Protection	From 200/600 Areas Environmental Protection	Page 1 of 2
		Date June 9, 1989
Project Title/Work Order Environmental Radiological Survey Summary for March 1989 SD-SQA-EV-20037		EDT No. 119651 ECN No.

Name	MSIN	With Attach.	EDT/ECN & Comment	EDT/ECN Only
WESTINGHOUSE HANFORD COMPANY				
M. R. Adams	H4-55	X		
R. J. Baumhardt	R2-40	X		
D. A. Berg	R1-67	X		
T. D. Blankenship	S5-04	X		
G. D. Carpenter	H4-15	X		
H. F. Daugherty	R2-53	X		
B. R. Dickey	S5-66	X		
L. P. Diediker	T1-30	X		
J. J. Dorian	H4-15	X		
G. T. Dukelow	R1-81	X		
D. R. Ellingson	R3-09	X		
D. B. Erb	R1-51	X		
Z. D. Farris	H4-52	X		
D. W. Fritz, Jr. (2)	T1-30	X		
J. M. Garcia	X0-04	X		
E. M. Greager	L6-60	X		
R. H. Griffin	T3-21	X		
M. L. Grygiel	S6-65	X		
V. W. Hall	H4-53	X		
W. F. Heine	R1-15	X		
M. E. Hevland	R3-12	X		
M. C. Hughes	R1-15	X		
R. K. Hulvey	T4-10	X		
D. P. Hutchison	H4-50	X		
G. W. Jackson	R2-29	X		
A. R. Johnson	T1-30	X		
R. P. Knight	R3-12	X		
R. E. Lerch	H4-51	X		
J. B. Levine	X3-50	X		
W. C. Mallory	S5-51	X		
D. J. McCain	S0-08	X		
R. G. Mikulecky	T1-25	X		
G. J. Miskho	T4-42	X		
R. M. Mitchell	H4-55	X		
W. L. Osborne	R2-77	X		
J. A. Rivera	H4-15	X		
J. B. Shannon	T3-21	X		
M. I. Sinclair	T3-21	X		
D. R. Speer	R2-77	X		
R. W. Szempruch	S6-05	X		
D. A. Turner	R1-10	X		
B. F. Weaver	R1-67	X		
A. B. Webb	T4-10	X		
S. A. Wiegman	H4-50	X		
B. W. Wyrick	T3-21	X		

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Project Title/Work Order: Environmental Radiological Survey Summary for March 1989 SD-SQA-EV-20037		EDT No. 119651
		ECN No.

Name	MSIN	With Attach.	EDT/ECN & Comment	EDT/ECN Only
U.S. DEPARTMENT OF ENERGY RICHLAND OPERATIONS OFFICE				
G. M. Bell	A5-55	X		
G. J. Bracken	A6-80	X		
R. L. Brich	A5-55	X		
P. F. X. Dunigan Jr.	A5-55	X		
R. J. Nevarez	A6-80	X		
J. P. Sands	A6-95	X		
PACIFIC NORTHWEST LABORATORY				
R. E. Jaquish	K5-09	X		
K. R. Price	K5-09	X		

JUL 13 1989 48
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ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT 119651

2. To: (Receiving Organization) Environmental Protection	3. From: (Originating Organization) 200/600 Areas Environmental Protection
5. Proj/Prog/Dept/Div:	6. Cog/Proj Engr:
8. Originator Remarks: Environmental Surveillance	4. Related EDT No: N/A
11. Receiver Remarks:	7. Purchase Order No:
	9. Equip/Component No: N/A
	10. System/Bldg/Facility: N/A
	12. Major Assm Dwg No: N/A
	13. Permit/Permit Application No. N/A
	14. Required Response Date: N/A

15. **DATA TRANSMITTED**

(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev No.	(E) Title or Description of Data Transmitted	(F) Impact Level	(G) Reason for Transmittal	(H) Originator Disposition	(I) Receiver Disposition
1	SD-SQA-EV-20037		0	Environmental Radiological Survey Summary for March 1989	4	1	1	

16. **KEY**

Impact Level (F)	Reason for Transmittal (G)	Disposition (H) & (I)
1, 2, 3, or 4 see MRP 5.43 and EP-1.7	1. Approval 4. Review 2. Release 5. Post-Review 3. Information 6. Dist (Receipt Acknow. Required)	1. Approved 4. Reviewed no/comment 2. Approved w/comment 5. Reviewed w/comment 3. Disapproved w/comment 6. Receipt acknowledged

17. **SIGNATURE/DISTRIBUTION**
(See Impact Level for required signatures)

(G) Reason	(H) Disp	(J) Name	(K) Signature	(L) Date	(M) MSIN	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp
1	1	Environmental Assurance									
		G. D. Carpenter		6/14/89	H4-51						

18.	19.	20.	21. DOE APPROVAL (if required)
A. R. Johnson for 6-12-89 Signature of EDT Originator / Date	J. J. Dorian 6/13/89 Authorized Representative for Receiving Organization / Date	L. P. Diediker 6-12-89 Cognizant/Project Engineer's Manager / Date	Ltr No. ____ ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments

BD-7400-172 (2/89)